

(Deemed to be University u/s 3 of UGC Act, 1956) **Grade 'A' Accredited by NAAC** Sector-01, Kamothe, Navi Mumbai - 410 209 Tel 022-27432471, 022-27432994, Fax 022 - 27431094 E-mail : registrar@mgmuhs.com |Website : www.mgmuhs.com

## Value Added Course

### **Snapping Moves**

Dr. Rajesh B. Goel Registrar MGM INSTITUTE OF HELATH SCIENCES (DEEMED UNIVERSITY w/s 3 of UGC Act,1956) NAVI MUMBAI- 410 209

Dr.Shashank D.Dalvi Vice Chancellor MGM INSTITUTE OF HEALTH SCIENCES (DEEMED UNIVERSITY u/s 3 of UGC Act, 1956) KAMOTHE, NAVI MUMBAI

## **MGM SCHOOL OF PHYSIOTHERAPY**

MGM Institute of Health Sciences, Navi Mumbai



#### VALUE ADDED COURSE

on

# SNAPPING MOVES



#### DR. HIRANMAYEE BAGWE (PT) DR. AVINASH NARAYANKAR

Objective of this course is to understand process of capturing patient photographs and videos using digital cameras or mobile phones

Learn to capture photographs and videos of healthy participants while performing activities of daily living, walking, stair climbing, running

Duration : 40 hours for 8 weeks

End of course evaluation will be asessed through video project of 80 marks

Certificate will be provided after completion of 40 hours of coursework, Project and feedback submission

FOR INQUIRIES, EMAIL US AT MGMSCHOOLOFPHYSIOTHERAPY@MGMSOPNM.EDU.IN

ACTIVITIES OF DAILY LIVING

3

4

SPORTS

SPORTS

DANCE



(Deemed University u/s 3 of UGC Act, 1956) Grade 'A' Accredited by NAAC MGM SCHOOL OF PHYSIOTHERAPY Sector-1, Kamothe, Navi Mumbai – 410209

#### Value Added Course Title: Snapping Moves

Course Duration : 40 hours – 8 weeks

Course Coordinator: Dr. Hiranmayee Bagwe (PT) & Dr. Avinash Narayankar

Course Instructors: Dr. Triveni Shetty (PT), Dr. Avinash Narayankar and Dr. Hiranmayee Bagwe (PT)

#### **Course Learning Outcomes**

At the end of the course, the candidate will be able to:

- CO 1 demonstrate process of capturing of patient photographs and videos using digital cameras or mobile phones apply technical considerations- equipment, concept of composition, light, exposure,
- CO 2 focus, alignment, depth of field ,different types of photography, post photo processing, , identify bony landmarks, position reflective markers and capturing activities of daily living
- CO 3 apply ethical considerations while capturing photographs of human participants and seeking written informed consent
- CO 4 capture photographs and videos of healthy participants while performing activities of daily living, walking, stair climbing, running etc.
- CO 5 use software's for analysis of 2D motion capture, measure spatial-temporal variables, joint angles, measure inter tester ad intra tester reliability of data captured

Beneficiaries: BPT and MPT students of MGM School of Physiotherapy, Navi Mumbai and Aurangabad

Infrastructure support:

Items	Availability status	Items	Availability status
Digital camera	Available (Media Lab, MGMIHS)	Kinovea software for 2D motion analysis	Available
Biomarkers	Available (MGMCHMS)	Silicon coach software for 2D motion analysis	To procure
Reflectors	Available (MGMCHMS)	Kinect software for 2D motion analysis	To procure
Green screen	Available (Media Lab, MGMIHS)		



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Sector-1, Kamothe, Navi Mumbai – 410209

#### Value Added Course Title: Snapping Moves

#### **Duration : 40 hours – 8 weeks**

#### Course Coordinator : Dr. Hiranmayee Bagwe (PT) & Dr. Avinash Narayankar

Course Learning Outcomes				
At the end of the course, the candidate will be able to:				
CO 1	demonstrate process of capturing of patient photographs and videos using digital cameras or mobile phones			
CO 2	CO 2 apply technical considerations- equipment, concept of composition, light, exposure, focus, alignment, depth of field ,different types of photography, post photo processing, , identify bony landmarks, position reflective markers and capturing activities of daily living			
CO 3	3 apply ethical considerations while capturing photographs of human participants and seeking written informed consent			
CO 4	CO 4 capture photographs and videos of healthy participants while performing activities of daily living, walking, stair climbing, running etc.			
CO 5	use software's for analysis of 2D motion capture, measure spatial-temporal variables, joint angles, measure inter tester ad intra tester reliability of data captured			

Units	Topics	Hours	
1	Introduction to patient photography and videography&ethical considerations and informed consent		
2	Advanced technical aspects of photography and videography- photography equipment: camera, lens, tripods, digital storage Camera settings: shutter speed, aperture, ISO, camera modes, flash, metering, colour filters, focus, exposure, composition, depth of field common camera settings to take sharp pictures Lighting: natural vs artificial light, indoor vs outdoor photography		
3	<ul> <li>Different types of photography: portrait, landscape, macro, motion photography representation of digital image: resolution, pixel depth, pixel aspect ratio, image compression, file formats.</li> <li>Digital Output: placing photos in other documents, printers as output devices – different types of print, proofing, photo quality printing</li> </ul>		
4	Post photo processing: digital retouching & image enhancement, image editing through image editing software like adobe photoshop – adjustment of brightness, contrast, tonal and colour values, colour correcting.		
5	Video capture of sports movements - cricket, kabbadi, langadi	2 2	
6	Video capture of dance movements – Bharatnatyam, Hip Hop, Kathak		
7	Video capture of activity of daily living (ADL) movements		
8	Video capture of exercise and traditional Indian human movements		
9	Placement of reflectors and biomarkers for analysis	2	



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10	Software used to analyze 2D motion capture-Kinovea, Silicon coach, Hurdle, Kinect	2
Theory Total		
Topics (Practical)		
1	2D motion of sports movements – cricket, kabbadi, langadi	4
2	2D motion of dance movements – Bharatnatyam, Hip Hop, Kathak	4
3	2D motion of activity of daily living (ADL) movements	4
4	2D motion of exercise and traditional Indian human movements	4
5	2D motion of sports movements – cricket, kabbadi, langadi	4
Practical Total		20

#### **Examination Scheme**

Sr. No.	Question	Marks
1	Multiple choice questions	10 marks
2	Short answer questions (5 marks x 2)	10 marks
3	Practical skill evaluation (10 marks x 2)	20 marks
4	*Project evaluation	40 marks
Total		80 marks

\*Project: One video (20 marks) and one flyer (20 marks) inclusive of videographs and photographs for patient education and training

#### **Course completion criteria:**

- 1. Compulsory attendance of all sessions
- 2. Successful passing of course with more than 50% score
- 3. Submission of feedback on course